C. The Commission Should Establish Uniform Depreciation Schedules Based On The Economic Life Of The Asset

It has aptly been said that "[o]ne of the most difficult and interesting problems of rate making in the face of cost changes over time has to do with the appropriate reflection of technological change in determining the depreciation component of cost of service."[42] Determining the proper treatment of depreciation for ratemaking purposes in the cable industry poses an especially daunting challenge, for few regulated industries are in as dramatic a period of change. Not only must the Commission establish a set of workable depreciation rules, but it should do so in a manner that preserves the opportunity to employ streamlined procedures for cost-of-service regulation.

The Commission can best achieve these objectives by establishing uniform standards governing depreciation while allowing operators a degree of flexibility in applying them in their individual circumstances. The Commission has already taken this approach in its regulations governing the setting of Equipment Basket rates. A similar approach is appropriate in this context as well.

In particular, the Commission should require operators to use straightline depreciation over the economic life of

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[42] Kahn, The Economics of Regulation, I at 117 (MIT edition 1988).

the assets. Rather than prescribing specific schedules for each type of equipment, the Commission should establish broad categories of assets, and allow operators to depreciate over the economic life of the particular types of assets that they have. To simplify administration, assets should be depreciable on a system-wide basis, and not subject to differing depreciation schedules for different franchise areas served by a single system. These elements are discussed below.

First, the Commission should provide for depreciation of assets on a straightline basis.[43] Straightline depreciation, a common accounting technique, has previously been applied by the Commission in the cable industry -- in regulating Equipment Basket rates -- and balances in a neutral manner the competing interests of subscribers in reasonable rates and the cable industry in recovering its costs. It also works smoothly in conjunction with the trended original cost approach to valuing a ratebase.

Second, given the dynamic nature of the cable industry and the differing characteristics of physical property used in the provision of cable services there would be little benefit in the Commission's attempting to prescribe detailed depreciation schedules for each type of asset. Instead,, the Commission should establish broad categories of depreciable

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[43] NPRM at ¶28.

assets, such as plant (both outside and inside), buildings, vehicles and maintenance equipment, and home equipment. Specifying general categories of assets would also be consistent with the approach the Commission took previously in regulating equipment charges, and would tend to streamline cost-of-service showings.

Third, the Commission should also require cable operators to depreciate their assets over their economic lives.[44] This will protect consumers by discouraging operators from replacing plant before it is economically appropriate, yet still permits the installation of newer plant when economically desirable. It also avoids creating incorrect economic signals to competitors and investors, for, if competition is "to be viable, it is necessary for price to reflect depreciation expenses that are realistic for a competitive market."[45] In applying this standard, the Commission, consistent with its policy regarding equipment charges, should give cable operators discretion to determine the appropriate economic life for their assets in accordance

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[44] These comments use the terms "economic life" and "useful life" as synonymous for practical purposes.

[45] Amendment of Part 31, Uniform System of Accounts for Class A and Class B Telephone Companies, 98 F.C.C.2d 864, 877 (1983), reversed on other grounds sub nom. Louisiana Public Service Commission v. Federal Communications Commission, 476 U.S. 355 (1986).

with Generally Accepted Accounting Principles ("GAAP"), which operators are already under an obligation to follow.

Due to the rapid pace of technological advance in cable plant and equipment, the salvage value of most cable physical assets is insignificant. However, rather than establish a national value of zero, it would be more practical to allow cable operators to establish their own salvage value if warranted by the conditions then prevailing in their geographic location.

Fourth, the Commission should allow cable operators to depreciate their assets on a system-wide basis.[46] This will allow depreciation to occur on a consistent, system-wide basis in an economically rational manner. Setting depreciation schedules on a franchise-by-franchise basis would be unlikely to serve the public interest and, as a practical matter, would serve no useful or accounting purpose. Furthermore, such a severely Balkanized regulatory system would interfere with the attainment of other important objectives identified by Congress in the 1992 Cable Act: the promotion of video competition and infrastructure development. The Commission has stated that "improper capital recovery could delay or prevent modernization which

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[46] Assets recorded on a cable operator's books at a level higher than system-wide would necessarily need to be allocated to the system level before rates could be developed.

would add to the costs borne by ratepayers and could, ultimately, threaten carriers' ability to fully recover their invested capital."[47] If separate depreciation schedules are created for each franchise area served by the same system, cable operators could be forced to delay or refrain from desirable infrastructure modernization and their ability to respond to competition would be impaired.

These depreciation standards would help to streamline cost-of-service showings by establishing national standards to govern the depreciation component of a cable operator's case. By doing so, they would promote administrative efficiency by removing from cost-of-service rate proceedings a major, and potentially highly litigious, issue.[48]

D. The Commission Should Adopt Cost Allocation and Cost Accounting Rules That Are Easy To Use, That Apply on a System-Wide Level, And That Recognize Cable's Future Digital Environment

Cost allocation and accounting rules are necessary components of a sound cost-of-service rate regulatory regime.

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[47] 92 F.C.C.2d at 877.

[48] Section 543 of the 1992 Cable Act, which authorizes the Commission to adopt regulations to ensure that the rates for the basic service tier are reasonable to take into account the direct costs of providing cable service, confers upon the Commission the authority to establish cost-of-service rules, which include depreciation, that are binding on local franchising authorities. This specific grant of authority distinguishes the Commission's cable regulations from its unsuccessful attempt to preempt inconsistent state depreciation policies in the telephone industry. See Louisiana Pub. Service Comm'n, 476 U.S. 355.

Given the potentially large number of cost-of-service proceedings that could develop under these rules and in order not to impair the viability of the cost-of-service showing as a reasonable option for cable operators, the Commission must take care to adopt allocation and accounting rules that are simple for the cable industry and reviewing authorities to use. Furthermore, the Commission should avoid adopting rules that will become obsolete as cable technology becomes increasingly digitized, and therefore should not apportion costs between regulated and non-regulated services on the basis of concepts such as "channels" that will rapidly become meaningless.

Finally, the Commission should allow cable operators to average costs on a system-wide basis, other than for franchise-specific costs, and recover them on a per subscriber basis from the system's subscribers.

1. Cost Allocation And Accounting Rules For The Cable Industry Should Be Simple And Easy To Apply

Under the Report and Order cable operators already must maintain their books in accordance with Generally Accepted Accounting Principles ("GAAP"). The Commission has also already established, in new Section 76.924 of its Rules,, straightforward cost allocation requirements which specifically govern equipment prices.[49] The NPRM asks whether further accounting and allocation requirements should be specified for cost-of-service showings.[50]

Few additional requirements are necessary. The Commission has already determined that the level of detail demanded by the Equipment Basket worksheets and schedules is sufficient for cost-of-service showings in that context. No rationale for more extensive requirements has been advanced. While some additional accounts may be appropriate in order to accommodate a cost-of-service showing that includes program service costs, certainly requiring any greater detail than proposed in Appendix A to the NPRM would be excessively burdensome.

In particular, the Commission should not mandate for the cable industry a counterpart of the Uniform System of Accounts ("USOA") in effect for regulated telephone companies.[51] Requiring cable operators to maintain such a minutely detailed system would be regulatory overkill. Cost allocation and accounting rules are intended to assure that customers of regulated services do not pay the costs of nonregulated services, and that regulated costs are properly apportioned across different categories of regulated services

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[49] See 47 C.F.R. § 76.924 (a)

[50] NPRM at ¶59.

[51] See NPRM at ¶58.

customers. A cable version of the USOA is simply unnecessary to accomplish these objectives in the cable industry. Cable operators are smaller than telephone companies and have much less complex costs and simpler pricing than telephone companies.[52] Furthermore, because cable operators historically have not maintained their records in the type of detail that a USOA system would demand, a USOA system would be extremely difficult to establish and administer.

It is evident from the regulatory scheme adopted in the Report and Order applicable to the Equipment Basket that a cost-of-service regime is workable without detailed accounting rules. A straight-forward approach such as contained in the allocation and accounting requirements already adopted in Section 76.924 should suffice.

2. Any cost allocation method used for apportioning the substantial value of system upgrades and other joint and common costs between regulated and unregulated services must recognize the coming digital and compression technologies

The Report and Order established reasonable principles for allocating costs between regulated and unregulated

[52] Cable systems pricing schedules are far simpler than those of telephone companies, which typically maintain separate tariffs for switched and special access services, types of transmission facilities, etc., often with usage and distance sensitive rates.

services.[53] These principles should continue to govern cost allocations both among cost categories used to develop regulated rates, and between regulated and nonregulated offerings for purposes of cost-of-service showings as well.

The Commission should reject any concept of allocating costs between regulated and nonregulated on the basis of "channels" in the coming cable digital environment. In particular, the use of "channels" as a factor on the basis of which costs should be distributed will become increasingly inappropriate. Thus, the Commission should, and contrary to a suggestion at one point in the NPRM, refrain from making further use of the concept of "channels" as a basis for allocating costs.[54] The Joint Parties recognize, however, that the Commission will have to fashion a working definition of channel equivalents as the cable industry transitions to digital operations.

The concept of a video "channel" derives from the analog video world and is inappropriate for digital communications, where capacity is measured in terms of bit rates rather than

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[53] 47 C.F.R. § 76.924(e) & (f). These rules require cable operators to allocate costs directly where possible, then to assign costs indirectly on cost-causative principles, and finally to apportion any unallocated costs on the basis of the ratio of distributed costs.

[54] See NPRM at ¶64. In addition, Section 76.924(e)(2) provides that service costs should be allocated to each regulated tier based on the ratio of channels in that tier to the total number of channels offered in the franchise area, including nonregulated and leased commercial access channels.

bandwidth. In the digital environment, which is coming as fast as optical fiber is deployed, capacity will no longer be measured in bandwidth (such as a 6 MHz video channel), but in terms of bit rates. Over time, the use of improved compression technology will render the concept of a "channel" even further obsolete.

This Commission has already recognized in the context of international telecommunications that "channels" is not an appropriate measure in a digital environment. See AT&T, 98 F.C.C.2d 440 (1984).[55] In addition, a report prepared by the Commission's Office of Policy and Planning has observed that the already difficult questions of allocating costs and pricing service "will be many more times difficult in an integrated broadband environment when each customer is served by a gigabit or terabit optical pipe the use of which is dynamically reconfigured as the customers uses different

[55] The Commission stated in that case: "Digital fiber optic technology produces a transmission system which differs significantly from conventional analog cables. In a digital system, communications are converted from a wave function into a series of binary digits or 'bits'. . . . In an analog system, on the other hand, communications are represented in their original wave form. They are transmitted as continuous electrical signals which carry information by means of variations in amplitude or frequency." 98 F.C.C.2d at 444. In that proceeding (the TAT-8 Section 214 authorization), the applicants assigned ownership units on the basis of Minimum Assignable Units of Ownership ("MAUO's"), which were defined as a basic usable bit stream of 64,000 bits per second ("bps") plus an additional 9,684 bps for multiplexing.

services and facilities."[56] The analysis concludes that applying traditional cost allocation and cost-of-service ratemaking principles to digitized video communications could produce highly anomalous results and would raise important issues of pricing policy. Similar concerns apply in the context of the cable industry as well.

Currently, Section 76.924(f) of the Commission's Rules, which requires the exclusion of direct and indirect costs of nonregulated services from the cost categories used to develop rates for regulated services, does not use a "channel" allocation factor. This is the correct approach to the allocation of costs between regulated and nonregulated services, and no change is appropriate.

3. The Commission should require cable operators to aggregate costs at the system-wide level, other than for franchise-specific taxes and obligations

The Commission also invited comment on the level at which cable multiple system owners should be required to aggregate their costs. As the NPRM observes, there is a "continuum between the poles of attempting to uniquely identify all the costs of a franchise, and MSO-wide cost

[56] Pepper, Through The Looking Glass: Integrated Broadband Networks, Regulatory Policy and Institutional Change, FCC OPP Working Paper 24, at 43 (Nov. 1988) ("Pepper Study"). The Pepper Study discussed in particular problems that could arise when traditional voice telephony and video signals are both transmitted over a digital system.

averaging."[57] The Commission should strike a middle point on the continuum, allowing cable operators to average their costs on a system-wide basis, to which would be added franchise-specific taxes and obligations on a franchise-area basis.[58] This would reasonably resolve the competing interests of reducing the burdens on cable operators while ensuring that franchise-specific costs are charged only to subscribers in that franchise area." Under this system, the revenue requirement for regulated services will be established at the system level, and would be distributed among the franchise areas served by the system on a per subscriber basis.

The NPRM accurately notes that few regulatory jurisdictions today conduct full-blown cost-of-service proceedings, and that forcing cable operators to maintain separate costs on, and file cost-of-service cases on the basis of, a franchise-by-franchise basis would be unduly burdensome. Most cable systems maintain their financiall records on a system-wide basis; except for single community systems, few if any maintain their books at the franchise level. The NPRM is correct that MSO's potentially could be

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[57] NPRM at ¶59.

[58] Joint and common costs incurred at a higher company-wide level could be allocated to systems according to the provisions of Section 74.924 of the Commission's Rules.

[59] NPRM at ¶61.

involved in hundreds of proceedings, for frequently a single cable system serves multiple franchise areas.[60] Indeed, the Commission's benchmark table assumes that it is the size of a system, measured by number of subscribers, rather than the size of a franchise or the entire company area that most affects rates.

Averaging revenue requirement on a system-wide basis would also, as the NPRM recognizes, simplify cost-of-service proceedings.[61] Use of a system-wide ratebase and operating expenses, together with a nationally uniform cost of equity capital and franchise specific fees, would materially reduce the burdens on cable operators.

E. The Approach Prepared In These Comments Permits A Simplified And Streamlined Approach To Cost-Based Regulation

These comments have described a comprehensive package of requirements for a cost-of-service showing by a cable

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[60] Several of the Joint Parties operate systems which serve a dozen or more franchise areas from a single headend.

[61] The NPRM (at ¶65) asks in what ways a cost-of-service showing in one franchise area would affect rates based on the benchmarks or cost-of-service showings in other, related franchises. Under the proposal in these comments, it is likely that an operator filing a cost-of-service showing for one franchise area served by a single system would do so for all franchise areas served by that system, because the reason for filing a cost-of-service showing would be that the benchmark rates for that system would be too low for that operator to recover its costs. However, the burden of making cost-of-service showings in each of multiple franchise areas served by one system would be reduced if the Commission adopts the streamlining suggestions made in these comments.

operator. The approach blends standardized cost-of-service benchmarks with the individualized costs of a particular operator. It also can form the basis of a streamlined process.

The process would work as follows: Cable operators would calculate, from their books and in accordance with the FCC's accounting requirements, a system-wide ratebase (valued on the basis of trended original cost of the system minus depreciation) and operating expenses for their system. The operator would use the rate of return prescribed by the Commission applied to the trended original cost rate base.

This comprehensive approach will allow cable operators to recover their costs fully while protecting consumers from unreasonable charges in a cost-effective and administratively simple manner. It will both satisfy constitutional standards and help to achieve the goals of the 1992 Cable Act.[62]

V. THE MARKETPLACE SHOULD GOVERN THE APPROPRIATE RECOVERY OF COSTS ASSOCIATED WITH AFFILIATE TRANSACTIONS

A. There Is No Need to Establish a Regulatory Program for Affiliate Transactions

[62] The Joint Parties endorse the Commission's suggestion that 1986 rates on a per-channel basis trended forward for inflation could serve as a simplified alternative to cost-of-service regulation. NPRM at ¶71. They emphasize, however, that this approach would be in addition to and not a substitute for a cost-based methodology.

The Commission proposes to adopt rules governing affiliate transactions in order to "prevent cable systems . . . from imposing the costs of nonregulated activities on regulated cable subscribers through improper cross-subsidization." NPRM at ¶67. The Commission has expressed concern that, in transactions involving affiliates, the "prices set by affiliates may not accurately reflect market prices." Id.

As an initial matter, the Commission must consider whether, based on the record, there is any reason to devote even a portion of its limited resources to the regulation of affiliate transactions. The record does not demonstrate any history of abuse in this area.[63] Absent such a demonstration, the Joint Parties submit that the Commission's limited resources should not be spent on an anticipated problem. In the event abuses do occur in the future, the Commission could quickly and more than adequately address the problem at that time.

This approach is vastly superior to a blanket, all-encompassing regulatory scheme that would serve only to hinder the efficient operations of the market. The

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[63] Indeed, to the extent that a concern was raised regarding the potential for abuse in the sale of programming, Congress determined that the abuse came from charging affiliated cable operators prices that were too low in comparison to the prices charged to non-affiliates. See 1992 Cable Act, §19.

Commission has recognized the benefits of vertical integration. See Notice of Proposed Rulemakinq and Notice of Inauirv, MM Docket No. 92-264, 8 FCC Rcd 210, 216 (1993) at ¶34; Report, MM Docket No. 89-600 (Cable Act Inquiry), 5 FCC Rcd 4962 (1990) at ¶¶82-86. To impose rules restricting affiliate transactions that are more stringent than absolutely necessary would deprive cable operators -- and ultimately consumers -- of the benefits of these efficiencies.

B. If Regulations Are Promulgated, the Commission Should Look to the Marketplace to Determine the Legitimacy of a Price Charged by an Affiliate

In the event the Commission deems it necessary to adopt safeguards at this time to prevent the potential for future abuse, the Joint Parties suggest that the cable operator be allowed to record affiliate transactions at prevailing company prices offered in the marketplace to third parties. See NPRM at ¶68. In such circumstances, the legitimacy of the cost can be determined by looking to the price of any sale of the same or similar product or service to any third party. Absent any such sales, the cable operator should be allowed to provide evidence as to the "prevailing market prices" of the product or service as provided by others. For example, a cable operator should be allowed to submit prices paid by an entity for the same or similar service or product from an independent supplier.

VI. THE COMMISSION SHOULD NOT IMPOSE A PRODUCTIVITY OFFSET FEATURE IN ITS CABLE PRICE CAP REGIME

The NPRM also raises several issues relating to the benchmark regime. Previously, the Commission announced that, on a going forward basis, cable operators will be able to adjust their benchmark rates to reflect increases in the GNP-PI. Now, the Commission asks whether it should adopt a productivity offset to the inflation index.[64] NPRM at ¶¶81-85. As discussed below, the Joint Parties believe that, in the absence of sufficient data to ascertain the appropriate level for a productivity offset, the Commission should not adopt any offset at this time.

First, as the Commission recognizes, the benchmark regime already takes productivity into account in at least two ways. The GNP-PI itself "automatically reflects certain productivity gains in the economy." NPRM at ¶83. Moreover, the "benchmark formula includes declining per channel rates with an increase in the number of channels." NPRM at ¶82, n.93. Thus, the question to be asked is not whether the Commission should impose a productivity offset, but whether

[64] Certain costs, of course, are not included in the limitation and would similarly not be subject to any productivity offset. See NPRM at ¶82 n.92. Rather, these costs may be "passed through" to subscribers.

there is any need to impose an additional productivity factor.

Even if the FCC believes such a need may exist, the record does not contain a sufficient basis for establishing the proper level of any particular productivity offset. Without a sufficient record, it would be a mistake to impose any offset because the long-term negative effect of an improper offset on investment in both infrastructure and programming would far outweigh any benefits to consumers in the form of lower prices. This is especially important given the inherent uncertainty as to the long-term effect of the newly imposed rate regulations in general.

In no event should the Commission impose a "telecommunications industry" adjustment productivity offset in order to "provide an incentive for future efficiency gains and harmonize incentives for converging technologies." NPRM at ¶85, n.99. The productivity offset in the telephone industry was imposed only after the Commission had the opportunity to review numerous studies that examined productivity in the telecommunications industry over periods of up to 50 years. See e.g., Policy and Rules Concerning Rates from Dominant Carriers, 4 FCC Rcd 2873, 2976 (1989). There simply is no similar set of data on which to base a productivity offset for the cable industry.

In sum, lacking any basis for imposing a standard and recognizing that its approach already takes productivity into account, the Commission should act cautiously and refrain from imposing any additional productivity offset.

VII. THE COMMISSION SHOULD NOT PRECLUDE CABLE OPERATORS FORMED AS PARTNERSHIPS OR SUBCHAPTER S CORPORATIONS FROM INCLUDING TAXES AS PART OF THEIR ANNUAL EXPENSES

The Commission proposes to allow cable operators to include taxes incurred in the provision of regulated cable services in determining their annual expenses. NPRM at ¶30. The Joint Parties strongly support this proposal. They disagree, however, with the Commission's decision to preclude those small businesses organized as partnerships and Subchapter S Corporations from making a similar provision for taxes when determining their legitimate expenses. Id. at n.32.

Although the Commission apparently has not before addressed this issue (because telephone companies rarely are organized as S corporations or partnerships), it is well settled that taxes should be includable expenses for partnerships and Subchapter S corporations in rate-regulated industries. See, e.g., Galveston Electric Co. v. City of Galveston, 258 U.S. 388, 399 (1922). Courts reviewing this issue have agreed that income tax liability incurred by shareholders of S corporations is an unavoidable business expenditure that must be recognized as a cost of service. For example, in Suburban Utility Corp. v. Public Util. Comm'n of Texas, the Supreme Court of Texas held that

> [t]he income taxes required to be paid by shareholders of a Subchapter S corporation on a utility's income are inescapable business outlays and are directly comparable with similar corporate taxes which would have been imposed if the utility operations had been carried on by a corporation. Their elimination from cost of service is no less capricious than the excising of salaries paid to a utility's employees would be.

652 S.W.2d 358, 364 (1983).[65]

Similarly, the New Mexico Supreme Court found that there was no rational basis to distinguish between income taxes paid a sole proprietorship and taxes paid at the corporate level because "[f]or all practical purposes, [the owner] is the Company and she is entitled to and accountable for all that pertains to its operation." Moyston v. New Mexico Pub. Serv. Comm'n, 412 P.2d 840, 848 (1966). Thus, the court allowed the deductions of taxes as an expense, stating that "rates which failed entirely to take [taxes] into account as operating expenses are unfair, unjust, unreasonable and discriminatory." Id. at 850-51.

In sum, the Joint Parties strongly urge the Commission to reconsider its approach in this regard. The legitimacy of

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[65] See also, Application of B & B Water System, Inc., Docket No. 2351, 4 P.U.C. Bulletin 1528, 1531 (May 1979); Application of Ingram Water Supply, Docket No. 2818, 6 P.U.C. Bulletin 579, 586 (May 1981).

taxes as an operating expense is unquestioned. To preclude partnerships and S corporations from including such an expense is not only incorrect as a matter of law, but it represents bad policy. The Commission's suggested approach will unfairly penalize certain entities and may cause the typically small cable operators heretofore organized as partnerships and S corporations to restructure their business affairs in order simply to avoid the harsh consequences of the Commission's rules, and thus lose the operational and managerial benefits that such entrepreneurs were intended to have. The Commission's rate regulations should not, however, favor one form of business organization over another. To preclude S corporations and partnerships from taking taxes into account as an operating expense would lead to such a result.

VIII. CONCLUSION

The foregoing comments attempt to set forth a comprehensive and coordinated set of principles which should guide the Commission in its formulation of a rational, legally sufficient and workable set of cost-of-service rules and standards. Adherence to these principles will produce rates which replicate those obtained in a competitive environment and which afford cable operators the opportunity to recover their costs and earn a reasonable profit. They will provide an effective alternative to the inadequacies of benchmarks as well as to the burdens of full-blown cost-of-service hearings. Accordingly, the Joint Parties urge that their suggestions be adopted.

Respectfully submitted,

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RATE OF RETURN ISSUES

IN CABLE TELEVISION COST-OF-SERVICE REGULATION

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Rate of Return Issues in Cable Television Cost-of-Service Regulation

I. Introduction and Summary

The Federal Communications Commission issued a Notice of Proposed Rulemaking in MM Docket No. 93-125 dated July 15, 1993 (hereafter, "NPRM") that proposes regulatory requirements to govern cost-of-service showings by the cable television operators. We have been asked by Cablevision Industries Corporation, Providence Journal Company, Consolidated Cable Partners, L.P., Crown Media, Inc., MultiVision Cable TV Corporation, and ParCable, Inc. to address the rate of return issues raised by the Commission's NPRM. In particular, we have been asked to address the Commission's proposals for setting the allowed rate of return for the cable industry.

We believe we are qualified to address these tasks. Although The Brattle Group is a young firm, the firm's members collectively have several decades of experience with cost-of-service regulation, and much of it focused on rate of return issues. For example, members of The Brattle Group advised the California Public Utilities Commission on the pros and cons of different ways to estimate the cost of capital in the early 1980s. This work subsequently led to a book on the topic.[1] Members of the firm have also explored the economic distinctions between the fair allowed rate of return and the cost of capital, in a series of publications.[2]

Appendix A contains more details on my (Kolbe's) qualifications. I was assisted in the preparation of this report by Lynda S. Borucki, who has worked on the cost of capital and related issues with me and with Professor Stewart C. Myers of MIT (also a member of The Brattle Group) in a number of previous matters. Ms. Borucki has her Ph.D. in Managerial

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[1] A. Lawrence Kolbe and James A. Read, Jr., with George R. Hall, ***The Cost of Capital***, (Cambridge, Mass., MIT Press, 1984).

[2] A. Lawrence Kolbe, and William B. Tye, 1991, "The ***Duquesne*** Opinion: How Much 'Hope' Is There for Investors in Regulated Firms?", ***Yale Journal on Regulation***, 8 (Winter): 113-157; A. Lawrence Kolbe and William B. Tye, 1992, "The Fair Allowed Rate of Return with Regulatory Risk," ***Research in Law*** and ***Economics***, 15; A. Lawrence Kolbe, William B. Tye and Stewart C. Myers, 1993, ***Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and*** Other Industries, Boston: Kluwer Academic Publishers.

Economics and Decision Sciences from the Kellogg Graduate School of Management, Northwestern University.

Our findings may be summarized as follows:

- The Commission proposes to use surrogate groups to estimate the cost of capital for the cable industry, apparently using the "Discounted Cash Flow," or "DCF," methodology for the cost of equity. The DCF method is used routinely to estimate the cost of capital for regulated companies, both for the companies themselves and for surrogate groups ***from the same industry.*** The fact that the Commission must propose surrogate groups from ***different*** industries, by itself, conveys important information about the cable industry :

    - One reason the DCF method will not work for cable companies is because most publicly traded companies that derive the bulk of their revenues from cable pay no dividends; many have ***negative*** net worth. This is a characteristic of high-growth. risky businesses;

    - Another reason the DCF method will not work is that the value of such companies includes valuable growth options, which cannot be correctly priced by the present value formula that underlies the DCF approach, and which imply that DCF estimates ***understate the*** cost of capital of the company analyzed.

    - Therefore, any surrogate group for which the Commission ***can*** estimate a DCF cost of capital is almost certainly much ***safer*** than cable companies.